



**Ayva**

**EHR Integration Guide**

January 2020

## Project Timeline and Resource Needs

Network Analyst <b>1-2 hours</b>	Interface Analyst <b>2-4 hours</b>	EHR Analyst/End User <b>3-5 hours</b>	Interface + EHR Analyst <b>4 hours</b>
<b>CONNECTIVITY</b> <ul style="list-style-type: none"><li>• Provide connectivity and message specifications</li><li>• Set up and validate connectivity</li></ul>	<b>PREPARE TO TEST</b> <ul style="list-style-type: none"><li>• Configure test systems to send and receive messages</li><li>• Send sample messages</li></ul> <b>FUNCTIONAL TESTING</b> <ul style="list-style-type: none"><li>• Validate in-scope messages can be sent and received</li><li>• Trigger and review test messages</li></ul>	<b>END-TO-END TESTING</b> <ul style="list-style-type: none"><li>• Validate workflow between Ayva and health system</li><li>• Turn on real-time test feeds</li><li>• Run testing scenarios with Ayva</li></ul>	<b>SOFT GO-LIVE</b> <ul style="list-style-type: none"><li>• Configure production systems to send and receive messages</li></ul> <b>GO-LIVE</b> <ul style="list-style-type: none"><li>• Monitor connection health and traffic</li><li>• Support end users</li></ul>

### HEALTHCARE ORGANIZATION STAFFING NEEDS

#### Connectivity Analyst

Ability to provision access to the EHR via VPN establishment, certificate exchange, and/or granting approval for the EHR vendor to allow access

#### Integration Analyst

Knows how to send and receive the required data needed for the integration project; this may be someone from the EHR vendor

#### EHR Analyst

Knows how to do the workflows that trigger message exchange and can validate that information sent back in is filing correctly; this may be the same person as the Integration Analyst

#### Project Lead

Person responsible for ensuring the project is successful; this may be the same person as the Integration Analyst or EHR Analyst

#### Subject Matter Expert(s)

Represents the end user by providing deep knowledge of current workflows, needs, and expectations of the application; this may be the same person as the Integration Analyst, EHR Analyst, or Project Lead

## **ESTIMATING PROJECT TIMELINES**

### **Time Needed**

Approximately 10-15 hours are needed from the health system's IT team to complete the EHR integration tasks.

### **What Our Estimates Include**

Our goal is to complete the needed set up for the in-scope data to flow between Ayva and the health system. The estimates presented here represent the time needed for all parties to feel confident that the integration is working as expected.

### **What We Can't Estimate**

There are a variety of nuances that differ across health systems based on their preferences, policies, and how they work with their EHR vendor.

Some integrations may require adjustments in the EHR or in end-user workflows in order for the expected data to be sent. The process for getting these decisions made, any required EHR build that's needed and completing approval process requirements vary widely across health systems and are not included in the estimate.

# Technical Details and Requirements

## DATA POINT REQUIREMENTS

### PatientAdmin

Patient MRN  
Patient Name, DOB, Gender, SSN  
Patient Address & Phone Number  
Patient PCP  
Insurance information  
Guarantor information  
Patient Contact information  
Visit IDs  
Visit Date/Time & Location  
Visit Reason & Diagnoses  
Visit Provider  
Discharge DateTime  
Discharge Disposition

### ClinicalSummary

Patient MRN, Name  
Allergies  
Medications  
Problems  
Recent Encounters  
Recent Labs  
Recent Procedures  
Vaccinations

### Media

Patient MRN, Name  
Document Type  
Document Date/Time  
Document ID  
Base64-encoded PDF

## PROJECT REQUIREMENTS

- VPN connection between Ayva and the EHR
- Client Cert TLS connection between Ayva and the connecting healthcare organization
- Active outbound ADT HL7v2 feed or corresponding web service
- Active outbound CDA document exchange through one of the following supported exchange methods:
  - MLLP push
  - XDR push
  - XDS.b or XCA query
  - FHIR
  - EHR proprietary API
  - SFTP Exchange
- Active inbound CDA document exchange through one of the following supported exchange methods:
  - MLLP push
  - XDR push
  - Proprietary API
  - SFTP Exchange
- Active inbound MDM HL7v2 feed or corresponding web service

## INTEGRATION WORKFLOW

### Step A: Patient Enrollment

Patients will be identified by outbound PatientAdmin messages from the health system upon patient discharge. The EHR will trigger messages, most likely via an ADT HL7v2 interface. Ayva will receive this information via the PatientAdmin data model.

### Step B: Clinical Information

After receiving the PatientAdmin message indicating the patient has been admitted, Ayva will query the health system EHR for the patient's full ClinicalSummary OR the Health System will push the patient's most recent C-CDA, which Ayva will receive via the ClinicalSummary data model.

### Step C: Outcomes and Observations

Ayva will post an updated Clinical Summary to the health system upon completion of the encounter, which will reflect any new home medications prescribed to the patient. We will map to a C-CDA document and push into the EHR. This information will be shown in the patient's chart in a reconciliation activity for a clinical user to add to the full list of medications, allergies or problems.

Additionally, Ayva will post a Media message to the health system. This message will contain a PDF report of the patient's encounter in Ayva. The message will be translated most likely to an MDM HL7v2 interface and filed into the EHR.